Pre and Post Stabilization and Structural Reforms in Latin America
-An assessment-

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Introduction

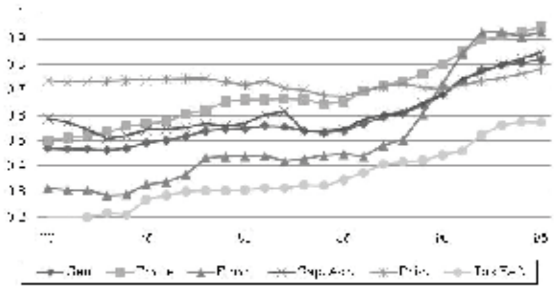
There have been a number of efforts to describe and quantify the reform process in Latin American and Caribbean [1] countries, but in particular, there are two of them developed by Lora and Morley [2] that offer some conclusions regarding reform measurement in the region. Although they differ in terms of period coverage, they measured the intensity and timing of first generation [3] reforms [4] by using an annual index normalized between zero and one, with one being the most reformed country.

The indexes permit to make comparisons of the degree of reform across countries over time and examine in a quantitative way the impact of these reforms. Lora as well as Morley considered almost the same components for every index, [5] and some of their conclusions are common to both of them. They found that trade and financial liberalization were the first components to be broadly adopted, while for privatization and tax reform there is less convergence and more variance.

Regarding privatization, in spite of the dynamism of the process, still some important petroleum or mineral companies remained as a state-owned in natural resources intensive economies, such as Mexico, Chile, Venezuela, Ecuador, Bolivia and Peru. The least developed reform is tax reform, suggesting that there is not much consensus on the nature of the optimal tax system.

Another important conclusion derived from the studies of Lora and Morley is the classification of the regional countries by the indexes. They almost agreed in four groups, the early reformers: Argentina, Chile and Jamaica; the gradual reformers: Colombia and Uruguay, the recent reformers: Bolivia, El Salvador, Nicaragua, Paraguay, Peru, and Dominican Republic, and the slow reformers: Brazil, Costa Rica, Ecuador, Honduras, Mexico and Venezuela.

Figure 1 shows the general and the different sector indexes and offers a graphic representation of the region [6] average of each reform. As it can be observed, it is clear that from 1990 the reform process accelerated dramatically its pace, especially trade and financial liberalization, whose indexes grew by far more than the general one.



Source: Morley et al. (1999)

Figure 1 [7]
LAC: Reform indexes

After reviewing the country-by-country analysis, Lora and Morley classification could be misleading, because it placed Uruguay as the most reformed country, and Chile which is considered the regional star, only in seventh place. Also Argentina is classified as early reformer because the unfortunate capital market reform in the seventies is included.

I. The year "zero"

The present document attempts to analyze the combine result of structural reforms and stabilization, by examining the behavior of the main macroeconomic variables before and after each reform. In table 1 the differences pertaining the timing of the reforms and the extent to which those reforms have been implemented across countries in the region are evident. The most widely adopted reforms have been tariff reduction and financial liberalization. If we take a look of the indexes, it could be noticed that the degree of the reform for capital account, taxes and privatization were not as significant as the financial and tariff reforms were in the final result of the general index. This country classification according to their reforms was originally made by Edwards (1995).

Table 1
LAC: Chronology of Reform

	Trade Reform	Tax Reform	Financial Reform	Capital Account	Privatization
70	None	None	None	Costa Rica Venezuela Argentina	Paraguay Peru El Salvador Guatemala Honduras Uruguay Argentina Brazil Colombia Costa Rica Dom. Rep.
71 - 85	Chile Bolivia El Salvador	Uruguay Chile	Colombia Uruguay Chile	Reversion in Costa Rica Venezuela Argentina	Reversion in Paraguay Peru Costa Rica Colombia
86 - 90	Argentina Colombia Costa Rica Guatemala Mexico Paraguay Uruguay Venezuela	Bolivia Brazil	Paraguay Bolivia El Salvador Brazil Argentina Mexico Costa Rica	Bolivia Costa Rica Guatemala	Paraguay Peru
91 - 95	Brazil Dom. Rep. Ecuador Honduras Peru	Costa Rica El Salvador Paraguay Peru	Peru Dom. Rep. Ecuador Guatemala Honduras	Argentina Dom. Rep. Ecuador El Salvador Honduras Peru Venezuela	Brazil Chile Colombia Costa Rica Peru

In order to make all countries' series comparable regardless their reform chronology, it was decided to turn "zero" the year in which the main structural reforms were carried out.[8] This means that "year plus one" (+1) represents a year after the reforms were implemented, and the "year minus one," (-1) the previous year of the reforms, and so on successively. This analysis will give us a picture before and after the structural reforms, making possible a time-series descriptive analysis for a cross-country data. The data used from figures 2 to 13 were obtained from the United Nations-ECLAC (2002) and the IMF (2003) and are a result of the author's calculations.

II. Macroeconomic performance in LAC

Six main variables will be considered in the analysis, economic growth, government consumption, fiscal deficit balance as a percentage of the GDP, tax revenues, monetary base growth, and inflation.

1.Economic growth

In terms of growth, the per capita income rates of selected regional countries were, all of them, clearly less eclectic after the reforms were carried out, and what is even more significant, growth rates were positive in almost all cases.

As we can observed in figure 2 and 3 the common

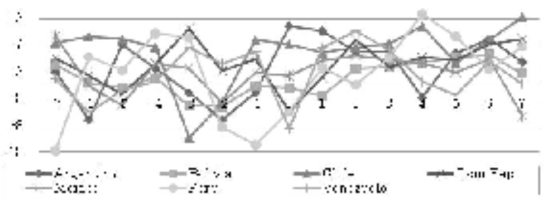


Figure 2
LAC early and rapid reformers before and after the reforms:
Economic growth (%)

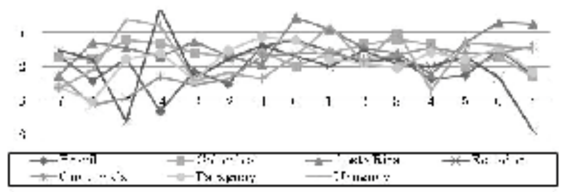


Figure 3
LAC timid reformers before and after the reforms:
Economic growth (%)

economic pattern after the structural reforms for all countries, from the so-called early reformers up to the rapid and timid reformers, was narrowing the range between the upper and lower limits within the growth rates fluctuated. None of those economies became more eclectic than before. However, some countries as it can be seen in both figures (2 and 3) registered a sudden and deep fall, such as Ecuador and Mexico.

2. Economic crisis as a precondition of structural reform

The aforesaid results lead us to think on the hypothesis of economic crisis as precondition of structural reform[9]. Stabilization in many LAC countries was accompanied by profound structural reforms, but the question here is: all reforms were caused by an economic crisis?

If a neat line is drawn before and after crisis for all countries, it can be seen that economies with negative growth rates have registered an improvement after the year “zero,” except for Bolivia. However, economic recovery for this country came one year later, and it was sustained as it can be seen in figure 2. Chile, Bolivia, and Mexico, the group of earlier reformers, and Argentina and Peru, the rapid reformers, are among the countries which have experienced more stable growth pattern. In all these countries stabilization and economic reform were definitively needed to curb the prevalent economic chaos.

For countries with positives rates of growth before the crisis, certain improvement in their condition post-reform can be observed. This is reflected on higher growth rates, or in the worst case lower rates can be observed, but they are still positive (Figure 2 and 3). According to this data, it can be inferred that in most of the cases, reforms and stabilization programs were needed not only to correct main macroeconomic distortions in the short term but also to boost the economies. The “crisis hypothesis” is based on this observation. It refers to the argument that economic crisis almost precedes the launching of a reform effort, stimulating the need for reform.

In general, structural reforms, in many cases implemented along with stabilization packages, have led to a post-reform-economic growth before an economic crisis. However, in the case of Colombia and its consecutive positive economic growth rates, the “crisis hypothesis” also takes into account political and institutional crisis, that undoubtedly hit this South American country in the eighties and nineties although its good economic performance. In general it is observed that after the year “zero” almost all economies improved their main economic indicators. Countries such as Colombia, Venezuela and Ecuador whose economic performance were very unsatisfactory during the last decade are the exceptions.

3. Government consumption and growth

Government consumption is closely correlated to the economic growth behavior[10]. It is not surprising to find out that the countries which carried out the deepest structural reforms as Chile, Bolivia, Argentina and Peru, almost the same group of the “crisis hypothesis,” are also among those countries whose government consumption decreased dramatically after the reforms (figure 4), basically due to a more disciplinary fiscal policy. However, for Brazil, Colombia, Costa Rica, Ecuador and Guatemala, government consumption did not decrease considerably after the reforms implementation (figure 5).

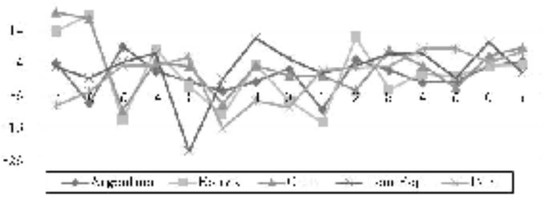


Figure 4
LAC rapid reformers before and after the reforms:
Government consumption growth (%)

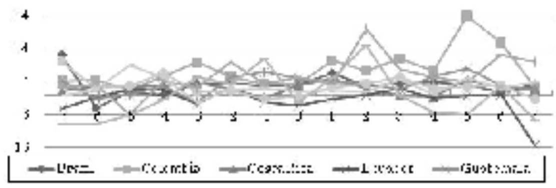


Figure 5
LAC timid reformers before and after the reforms:
Government consumption growth (%)

4. Government size

As the Inter-American Development Bank (2000) mentioned: “While in developed countries central government spending typically represents 40 percent of GDP, in Latin America that rate is around 20 percent. There is no simple criterion for pinpointing the size of spending, but international comparisons indicate that it tends to rise in proportion to the level of development. The size of the Latin America state measured by public spending as a percentage of GDP, is on average 9 points below the international norm for the same level of development (Inter-American Development Bank, 1998).

According to this international organization, the small size of government in the region is due above all to the modest size of economic expenditures such as investments in infrastructure and subsidies to productive sectors. The counterpart to the small size of the public sector in Latin America is low tax collection. For the development level of the countries, average tax burdens ought to be 24 percent of GDP, not 18 percent as they were by 1995, after the reforms. The maximum tax to individuals was lowered[11] in the region to make the tax system more effective, although the public administration and institutional capacity have been reinforced.

Regarding tax collection structure, LAC's tax revenues rely on value-added tax, specific taxes imposed on such a products as gasoline and alcoholic beverages, and tariffs, receiving the name of regressive system.[12] Contrary to global standards, tax imposed on income or property is relatively low.

5. Fiscal sector

If we observe the fiscal balance results[13], LAC can be divided into two clearly differentiated groups. Figure 6 depicts the behavior of countries that performed fairly well or at least maintained certain stability in their fiscal balances. Among those countries are the earlier reformers, one rapid reformer, one timid reformer and one good performer.

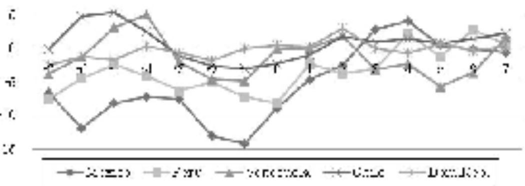


Figure 6
LAC before and after the reforms: Fiscal balance result/GDP (%)

6. Tax revenues

Fiscal sector analysis will be complemented with the review of tax revenue, which after the reforms in the case of some countries became the main pillar for macroeconomic stability and for fiscal and monetary policies.

Few countries, such as Argentina, Peru-the rapid reformers-, Uruguay and Dominican Republic a good performer during the last two decades, appeared to have improved their tax revenues over GDP ratio. The rapid reformers that applied a wide range of deep reforms in a very short period of time immediately bore the fruit of fiscal reform tax reform, privatization, retrenchment programs, and so forth and macroeconomic stabilization. Uruguay tax collection as percentage of GDP differs substantially from the average of its neighbors' rates, which to certain extent are in the same level. Also it is interesting to mention that Uruguay revenue collection relative to income behavior is quite similar to its closest neighbor, Argentina.

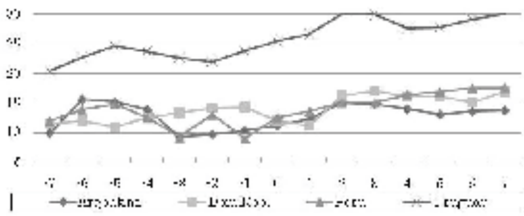


Figure 7
LAC before and after the reforms: Tax revenues/GDP (%)

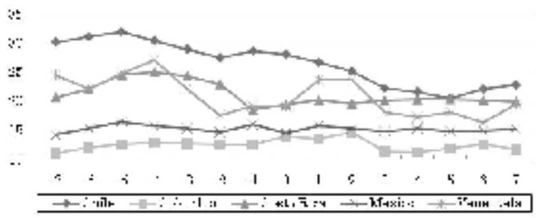


Figure 8
LAC before and after the reforms: Tax revenues/GDP (%)

Other countries' tax revenue over GDP ratios did not show major improvement after the reforms, in fact in general, they remained within the same range and even for some countries this ratio declined. Colombia and Mexico exhibit the most regular behavior, while Costa Rica and Venezuela with ups and downs also trace a stable path. For Chile right after the reforms a constant decrease of the ratio is observed, however five years after the reforms this ratio started a reverse trend. It is important to consider Chile's reform chronology and its successful performance during the last decade, which it is precisely not reflected in the previous figure.

7. Monetary variable and economic growth

For the majority of the LAC economies the long history of monetary base creation that fuelled temporal increases on economic growth rate with pernicious aftereffects on the main economic indicators has become to an end after the reforms. Although most of the economies returned immediately to the track marked by monetary discipline, for few of them, basically Bolivia and Mexico, the way to monetary and fiscal adjustment was not completely smooth (see figure 9).

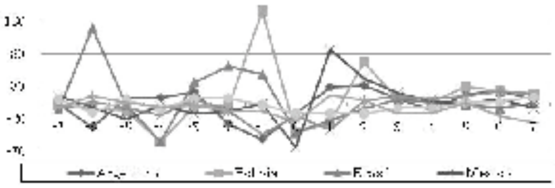


Figure 9
LAC before and after the reforms: Monetary base growth (%)

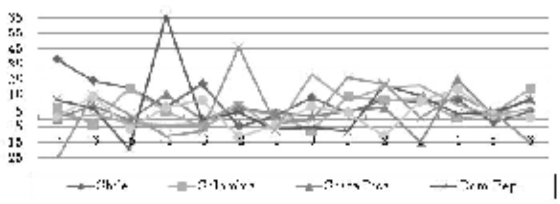


Figure 10
LAC before and after the reforms: Monetary base growth (%)

8. Inflation and economic growth

Inflation in LAC countries has been an unfortunate result derived from unsound monetary and fiscal policies. According to the inflation rate levels three clear groups can be identified. The high inflation group includes Argentina, Bolivia, Brazil and Peru; the moderate inflation group composed by Ecuador, Mexico, Dominican Republic, Uruguay and Venezuela, and finally, a relatively low inflation group made up by Chile, Colombia, Costa Rica, Guatemala and Paraguay.

The first group is shown in figure 11 where we can observed that all these countries registered a kind of hiccupping inflation pattern before or right after the reforms, which in many cases coincided with adjustment programs. Inside these groups we can discern two groups of countries, one where inertial inflation is endemic and therefore the increases were continuous; and the other group where sudden and skyrocketing rates were the pattern, but in any case, inflation was a product of the release of controlled prices, in a context of monetary and fiscal mismanagement.

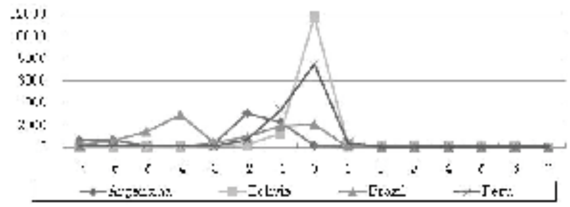


Figure 11
LAC before and after the reforms: Inflation (%)

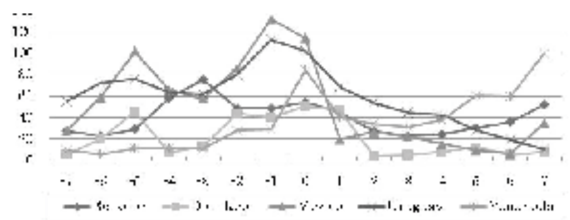


Figure 12
LAC before and after the reforms: Inflation (%)

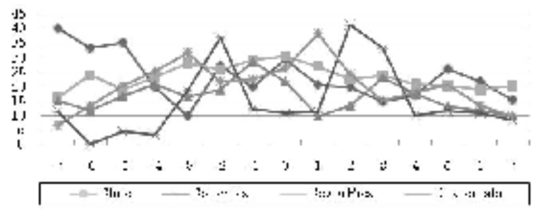


Figure 13
LAC before and after the reforms: Inflation (%)

For the second group of countries, inflation drew a decreasing and stable trajectory right after reforms took place. Although inflation rates in this group (Ecuador, Dominican Republic, Mexico, Uruguay and Venezuela) were not as high as in the first group (Argentina, Brazil, Bolivia and Peru), they reached annual rates of more than 100 percent and in some cases such as Ecuador and Venezuela, showed a reverting increasing trend by the end of the nineties.

Finally, in figure 13 countries' behavior with moderate inflation and with no clear pattern, before and after reform implementation is depicted. In all cases annual inflation rates are less than 40 percent and the year where reforms were implemented cannot be considered as a clear limit for inflation behavior before and after reforms, although for some countries as Chile, this variable behavior became less erratic than in the pre-reform period.

Regarding structural reform performance assessment, the academic literature has basically concentrated on the measurement and ranking of those reforms. The outcome of similar analyses carried out by Lora and Morley offer significant insights on the relevance of each reform (trade reform, domestic financial deregulation, external financial transaction liberalization, privatization, and tax reform.) in every LAC country in terms of its role as part of a comprehensive reform process. They found that trade and financial liberalization were the first components to be broadly adopted and were accelerated during the nineties, while for privatization and tax reform there is less convergence and more variance.

However, in LAC where structural reform has been usually accompanied by macroeconomic instability, or often considered as a measure of last resort for economic crisis, the analysis and assessment of structural reforms is undeniably associated with macroeconomic stabilization performance.

By analyzing the results on economic growth, it can be said that they are definitely positive. In general, in the post-reform period, growth rates became clearly less eclectic. Contrastively, macroeconomic instability during pre-reform period led us to validate the "economic crisis hypothesis."

As for fiscal performance, only few regional countries performed coherently. Peru, Chile and Dominican Republic, have tightened their government consumption levels, and made the efforts toward a fiscal balance based primarily on tax revenues. Unfortunately, there is no clear pattern behavior for fiscal variables in the remaining countries.

Differently from its fiscal performance, most of LAC economies returned immediately to the track marked by monetary discipline. The results in inflation are clear by far, although some inflationary inertia persists.

Either from our analysis based on the behavior of main indicators or from the other measurements as Lora's and Morley's, the nineties' economic and structural reforms has been outstanding compared to other decades, in terms of involved countries and reform depth. The deeper the structural reforms in some sectors, the higher the association with economic growth in those sectors. Trade and financial reform appear to be at the forefront of the structural change in Latin America, while privatization and tax reform have been left behind. The implementation of Washington Consensus policy measures have led to economic growth. And country grouping by economic growth is associated with country grouping by economic reforms, to certain extent.

After almost two decades of reforms and stabilization in the region, the agenda for short and long term measures remains pending. Resuming structural reforms is needed in order to foster higher growth rates that allow for more equal income distribution and poverty relief.

Despite the introduction of important reforms in the financial, labor and investment sectors, major hindrances to efficient markets remain. In the other areas weak property rights and excessive regulation are still obstacles for economic growth. There has been substantial progress in the areas of health, education and poverty alleviation, but still the quality of health and education remains dismal in comparison to that of the other regions, such as East Asia and Central Europe. Macroeconomic measures and structural reforms such as social security, pension fund and tax reforms already support fiscal sustainability as a precondition for economic stabilization in many LAC countries.

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[1] Henceforth "LAC."

[2] Lora (1997) and Morley et al. (1999).

[3] Most of the countries have undergone which is known as first generation reforms. First generation reforms represent a change in economic policies that alters some basic aspects of the economic structure of the country, such as deregulation and privatization, trade liberalization, welfare system reform, fiscal reform, and in some cases labor reform. In contrast second generation reforms or institutional reforms, aim to drastically change the institutions of the state, which are politically and technically more difficult to implement, as they entail changing the functioning of fundamental institutions.

[4] It includes trade reform, domestic financial deregulation, external financial transaction liberalization, privatization, and tax reform.

[5] For trade reform: average level of tariffs and dispersion of tariffs, for domestic financial reform: control of borrowing rate, control of lending rate and reserves to deposit ratio, for external financial reform: limits on profit repatriation, limits on interest repatriation, controls on external credits by national borrowers, and capital outflows, for privatization: one minus the ratio of value-added in state owned enterprises to non-agricultural GDP, and for tax reform: maximum and minimum marginal tax rate, value-added tax rate and efficiency of value-added tax rate.

[6] The following countries are considered: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Paraguay, Peru, Uruguay and Venezuela.

[7] Where "Gen" represents the general index, "Trade" the index for trade reform, "Finan" the index for financial reform, "Cap.Acc." for Capital Account Liberalization, "Priv" for privatization process, and "Tax Ref." the index for tax reform.

[8] The year or years in which the main reforms took place vary according to different studies. For the present analysis the following are considered as the most important years for structural reform, Chile (1985), Bolivia (1985), Mexico (1988), Guatemala (1988), Paraguay (1989), Venezuela (1989), Peru (1990), Dominican Republic (1990), Uruguay (1991), Argentina (1991), Colombia (1991), Ecuador (1992), Costa Rica (1992), and Brazil (1994).

[9] Ocampo (1999).

[10] Sueyoshi (2010).

[11] In the nineties, the rate was 40 percent in almost all regional countries, and in others it was 50, but by 2000 the level has been cut to 25 in average. Just for comparison, in developed countries that rate was 40 percent and in Asian countries, the rate was slightly below 40.

[12] LAC countries' tax structure is considered "regressive" because it affects mainly low-income groups. However, the Inter-American Development Bank (1998) explains that the term "regressive" is imprecise because the basis of comparison is not the same. Whereas distribution of taxes is compared to the income distribution curve, the distribution of benefits from spending is compared to the line of equal distribution.

[13] It refers to the central government primary fiscal result. That is to say it does not include interest payments on debt.

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Antes y Después del Proceso de Estabilización y Reformas Estructurales en América Latina

-Una evaluación-

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Resumen

Después del proceso de reformas estructurales en la región, la literatura académica en su afán de ofrecer una evaluación de las mismas, se centró en el desarrollo de índices como indicadores de la profundidad y cronología con la cual se llevaron a cabo. Destacan los trabajos de Lora (1997) y Morley et al. (1999), los cuales llegan a similares conclusiones luego de analizar la reforma commercial, deregulación financiera doméstica e internacional, privatización y reforma tributaria.

Sin embargo, es importante señalar que el proceso de reformas estructurales ha estado precedido usualmente por periodos de inestabilidad macroeconómica, por lo cual no sólo una revisión de la “hipótesis de la crisis” (Ocampo, 1999) es recomendable, sino también una evaluación conjunta de otros agregados macroeconómicos antes y después del proceso de reforma. Los principales datos obtenidos indican que en general mientras se observa un crecimiento post-reforma y se confirma “la hipótesis de la crisis,” los resultados en lo que se refiere a las variables fiscales no son concluyentes.

（2010 年 6 月 1 日受理）